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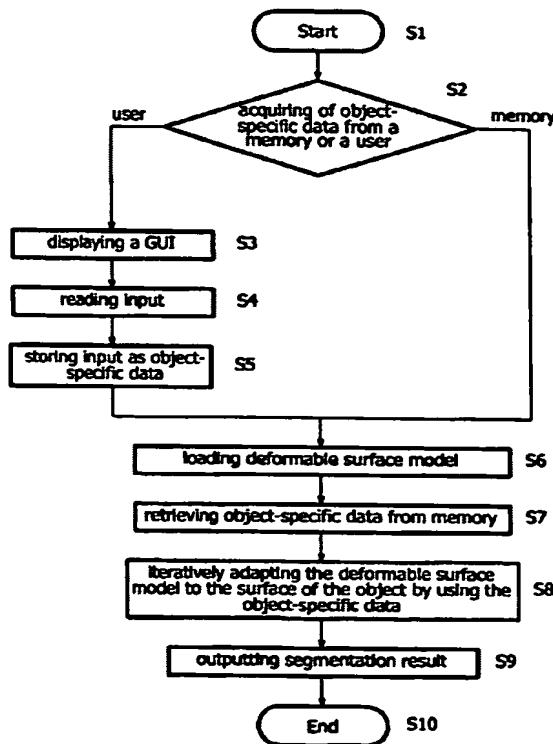
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(54) Title: OBJECT-SPECIFIC SEGMENTATION



(57) **Abstract:** The invention relates to the field of efficient segmentation of collections of anatomical structures in medical imaging. For example, in radiotherapy planning, the segmentation of a collection of several anatomical structures, which represent the target volume in risk organs is required. When using model based segmentation, organ models represented by flexible surfaces are adapted to the boundaries of the object of interest. According to an aspect of the present invention, object-specific a priori information is incorporated in the segmentation process, which allows to provide for an improved segmentation. Furthermore, the segmentation process according to the present invention, may have an improved robustness, also the time required for the segmentation maybe reduced.